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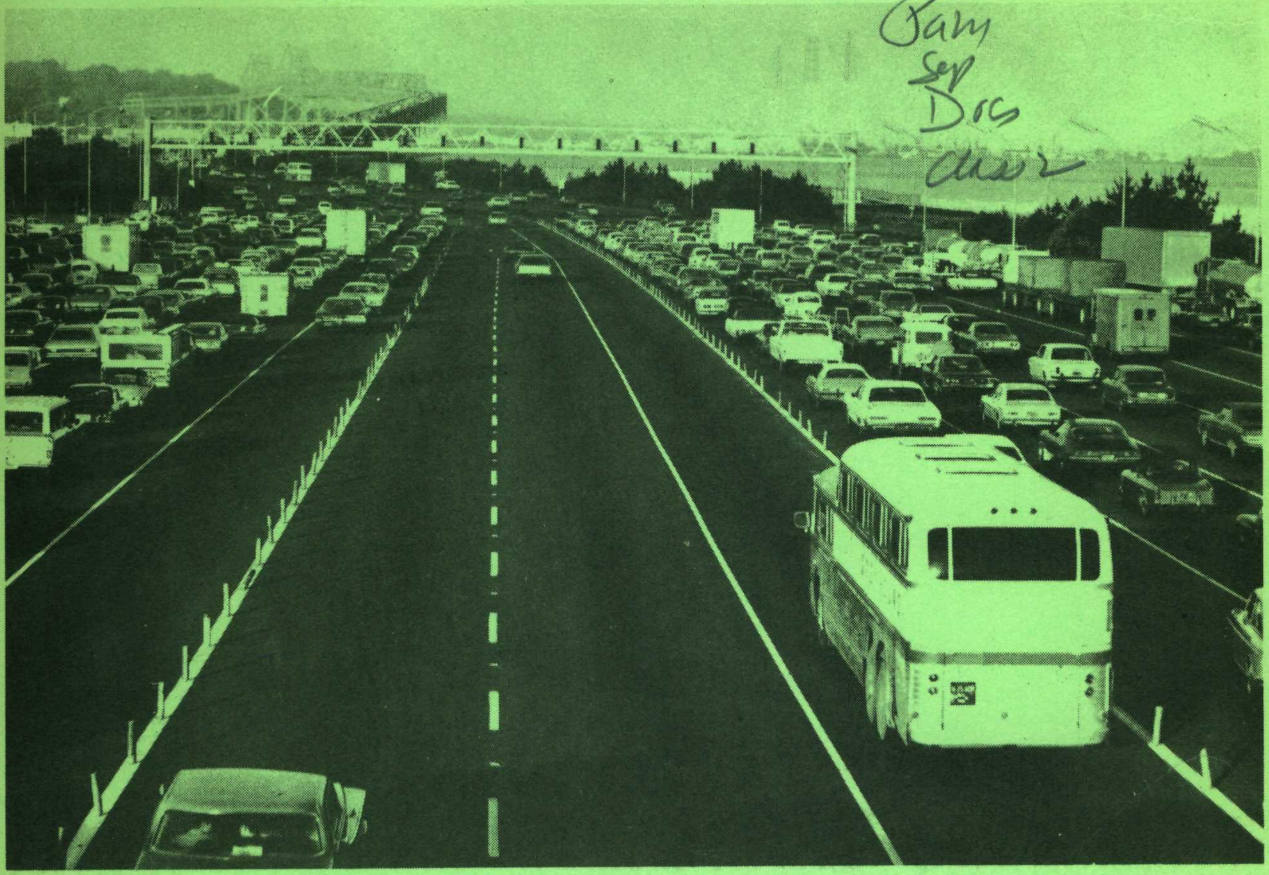

PREFERENTIAL LANES FOR HIGH-OCCUPANCY VEHICLES

A final report to the California Legislature

by the
STATE OF CALIFORNIA
BUSINESS AND TRANSPORTATION AGENCY
DEPARTMENT OF TRANSPORTATION

DECEMBER 1975

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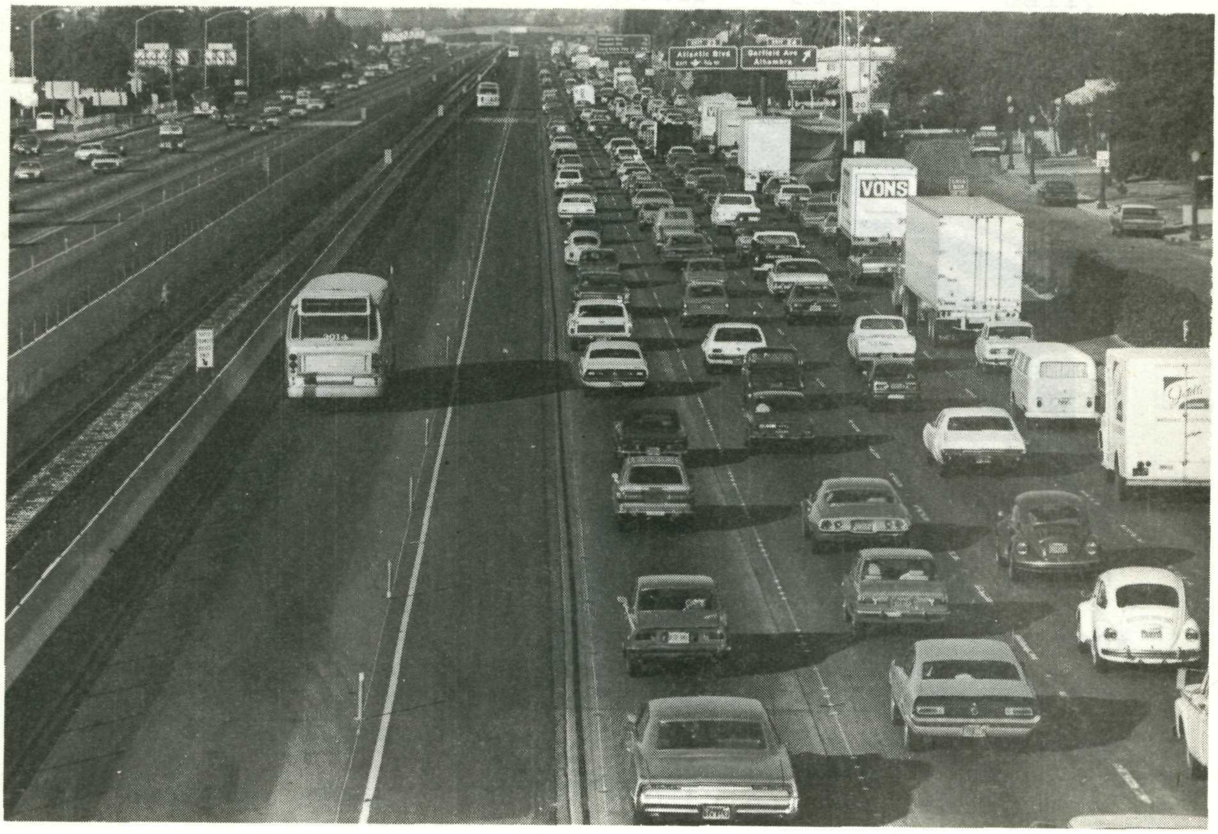
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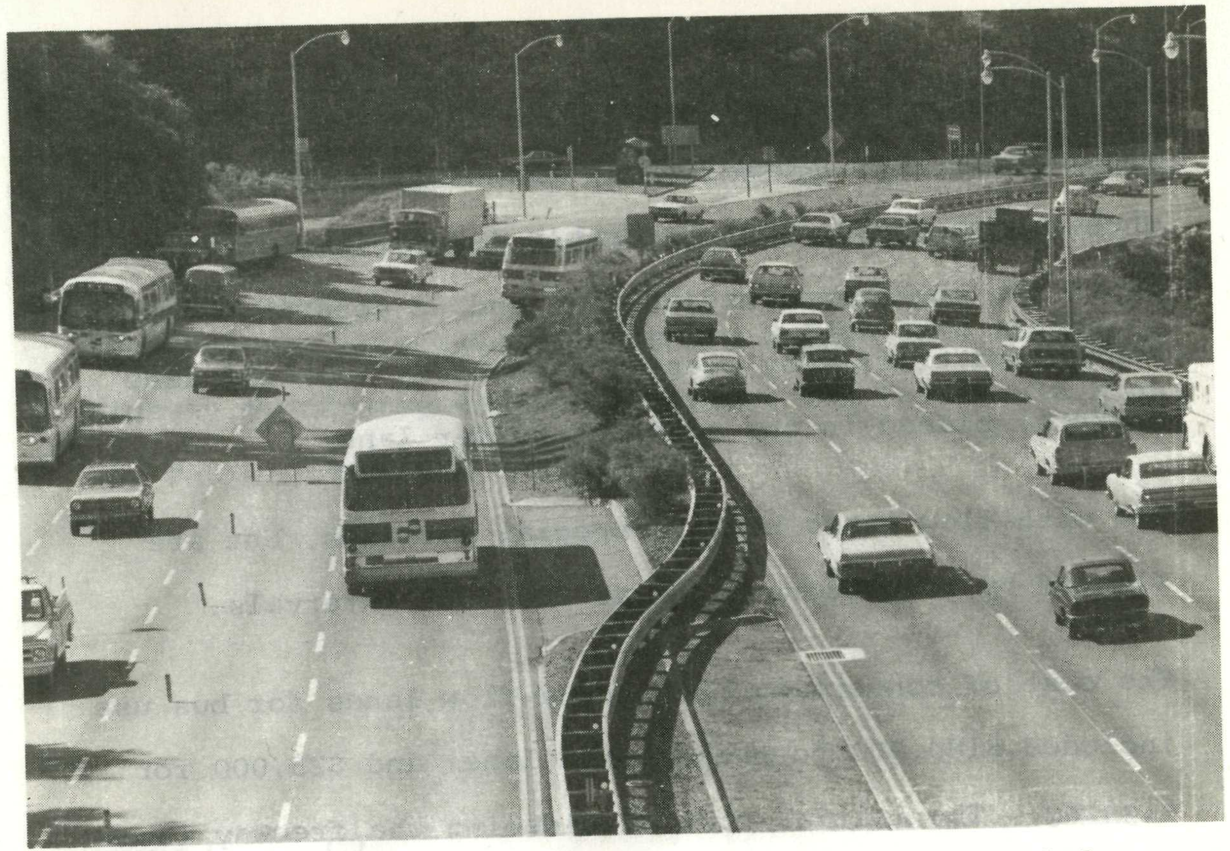
Garfield Ave
Alhambra
VONS

The San Bernardino busway is included in a tri-modal transportation corridor which also contains a freeway and a mainline railroad.



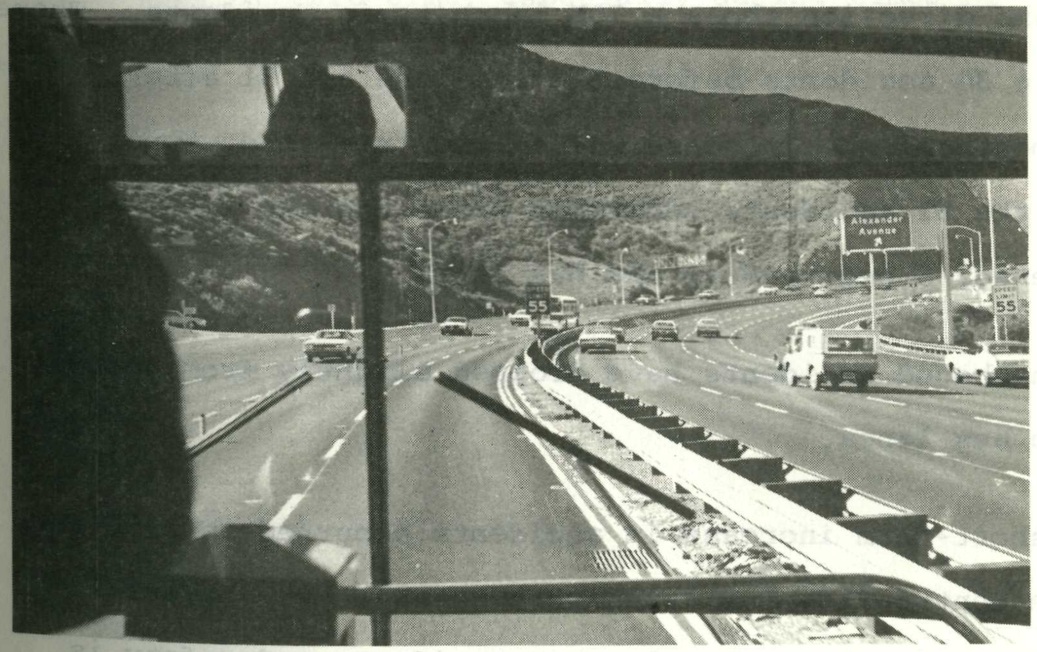
Contra-flow bus lanes in Marin County on Route 101. Note the buffer lane to the buses left.

During the 7 to 9 a.m. southbound period, the with-flow bus lanes save bus commuters about seven minutes. About five minutes are saved during the 4 to 7 p.m. northbound peak period.

Another evaluation of the system by Crain Associates, Menlo Park, for the Transportation Systems Center, Cambridge, Massachusetts considered both the with-flow and contra-flow lanes. Here are some of the findings of this report:

a. Time-savings

For safety reasons, bus speeds on the contra-flow lane are controlled to 40 mph. Northbound freeway traffic, however, which parallels the contra-flow lane, flows at an average speed of just under 50 mph. Thus, use of the contra-flow lane does not save time for users during normal traffic flow but can decrease bus commute time during periods of congestion.



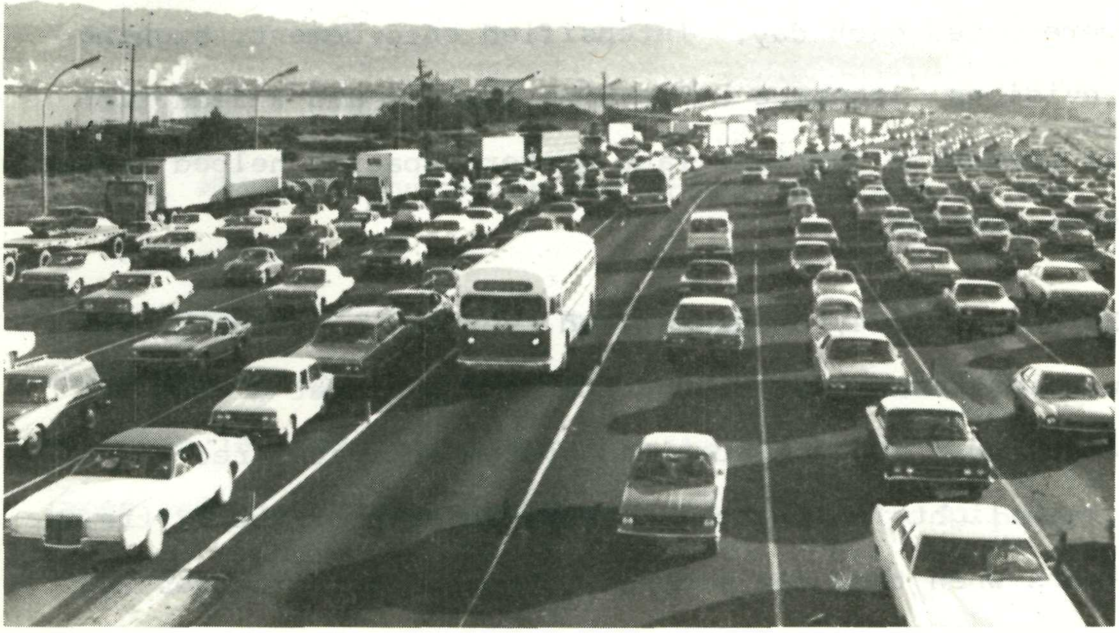
A view of the Route 101 contra-flow lane from a bus.

COMBINATION BUS AND CARPOOL PROJECTS

A. Preferential Toll Lanes at the San Francisco-Oakland Bay Bridge

In December 1971, preferential with-flow carpool and bus lanes were established to help carry multi-occupancy vehicles through the Bay Bridge's congested toll plaza during morning rush hours (see cover). The lanes are open from 6 to 9 a.m. and from 2 to 6 p.m. weekdays and aid commuters going toward San Francisco from the East Bay area. No toll is collected in the opposite direction.

The project involves one preferential lane for use by buses and two lanes for carpools with three or more persons. A single preferential lane begins about one-fourth mile before the toll plaza and then widens to three lanes.



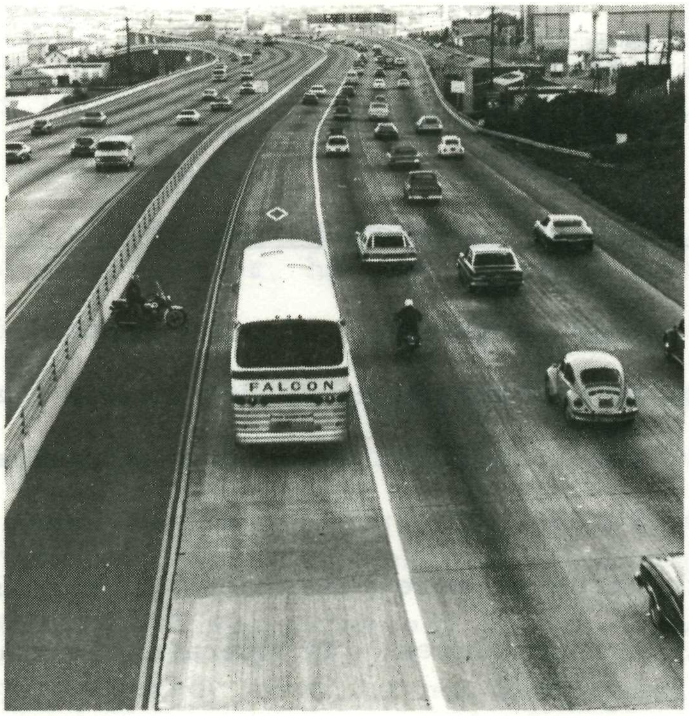
Preferential bus lane and two carpool lanes at the San Francisco-Oakland Bay Bridge Toll Plaza - view easterly.

The cost of converting the lane for preferential use was about $22,000 for signs and pavement markings.

The project is the first in California to test the feasibility of allowing carpools to operate in freeway lanes next to normal traffic flow.

Time savings for buses and carpools using the preferential lane is two-to-three minutes per trip. Shortly after opening there was a high violation rate by single occupant vehicles.

With stepped up enforcement by the CHP, violations have been greatly reduced and compliance is about 84 percent. However, congestion on other freeway lanes has increased and the overall success of the project is not certain at this writing.



Route 280 Bus and Carpool Lane in San Francisco